

Reference 2:

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Title: METHOD FOR CENTRIFUGAL SEPARATION TREATMENT OF SPECIMEN AND  
APPARATUS THEREFOR

Brief description of the drawings:

Fig. 1 illustrates the configuration of an apparatus of centrifugal separation treatment of specimen according to an embodiment of the invention;

Fig. 2 is a side view illustrating the configuration of a centrifugal separator body of the apparatus according to an embodiment of the invention;

Fig. 3 is a view illustrating the configuration of a centrifugal separation rotor of the apparatus according to an embodiment of the invention; Fig. 3(a) is a plan view and Fig. 3(b) is a side view;

Fig. 4 is a view illustrating the configuration of a main part of the apparatus according to an embodiment of the invention; Fig. 4(a) is a perspective view of a vessel loading part and Fig. 4(b) is a perspective view of a part of a specimen vessel manipulating device and a lock mechanism, with a part of the vessel loading part;

Fig. 5 illustrates an action of resolving imbalance by dummy vessels in the apparatus of centrifugal separation treatment of specimen according to an embodiment of the invention; and

Fig. 6 is a flow chart of a method for centrifugal separation treatment of specimen according to an embodiment of the invention.

- 1 ... specimen-containing vessel
- 2 ... vessel holder
- 3 ... specimen vessel set
- 10 ... transport device
- 11 ... carrying-in lane
- 12 ... carrying-out lane
- 13 ... first stopper
- 14 ... second stopper
- 20 ... centrifugal separator
- 21 ... case
- 22 ... top wall
- 23 ... window
- 30 ... standby device
- 31 ... empty holder standby lane
- 32 ... stopper
- 33 ... vessel sensor
- 34 ... dummy vessel feeding device
- 35 ... cylindrical holder
- 36 ... dummy vessel
- 37 ... pushing-out mechanism
- 40 ... reversible transfer device
- 41 ... transfer lane
- 42 ... drive mechanism

50 ... specimen vessel manipulating device  
 51 ... arm  
 52 ... catching mechanism  
 53 ... support base body  
 54 ... clipping part  
 60 ... centrifugal separator main body  
 61 ... main motor  
 62 ... drive shaft  
 63 ... brake mechanism  
 63a ... disc  
 63b ... brake  
 64 ... sensor for rotation angle of rotor  
 64a ... slit disc  
 64b ... photosensor  
 65 ... gear  
 66 ... arm  
 67 ... gear  
 68 ... auxiliary motor  
 69 ... vibration sensor  
 70 ... centrifugal rotor  
 71 ... shaft body  
 72 ... spoke  
 73 ... annular body  
 74 ... support projection  
 75 ... vessel loading part  
 76a,76b ... shaft part  
 77a-77e ... tube support hole  
 78 ... support bar  
 79a-79e ... vessel holding tube  
 80 ... lock mechanism  
 81,82 ... clipping element  
 83 ... drive mechanism

V,W ... vessel set transfer part  
 C ... controller (CPU)  
 D ... not-loaded part detector  
 M ... base body

# { Figures } Reference 2

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Fig. 1

[図1]

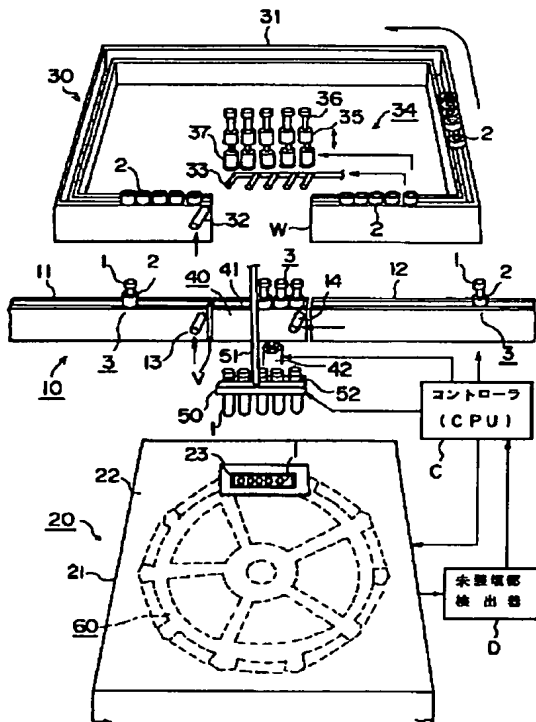


Fig. 2

[図2]

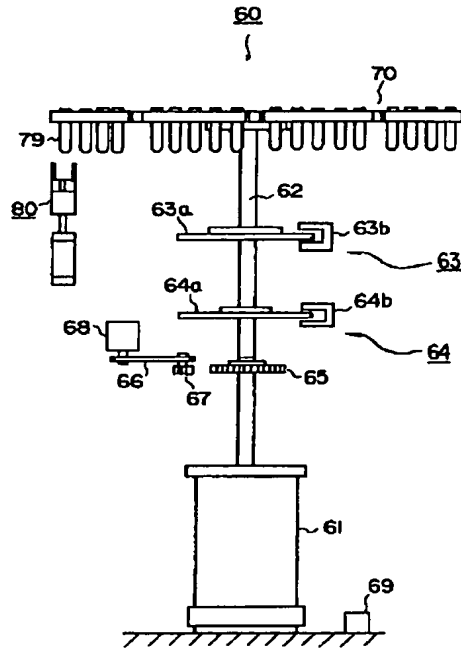
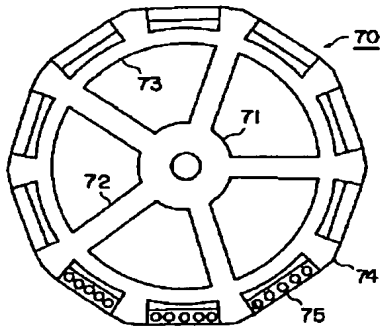


Fig. 3 [図3]

(a)



(b)

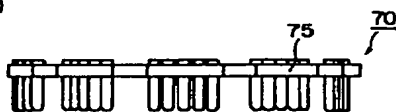


Fig. 4 [図4]

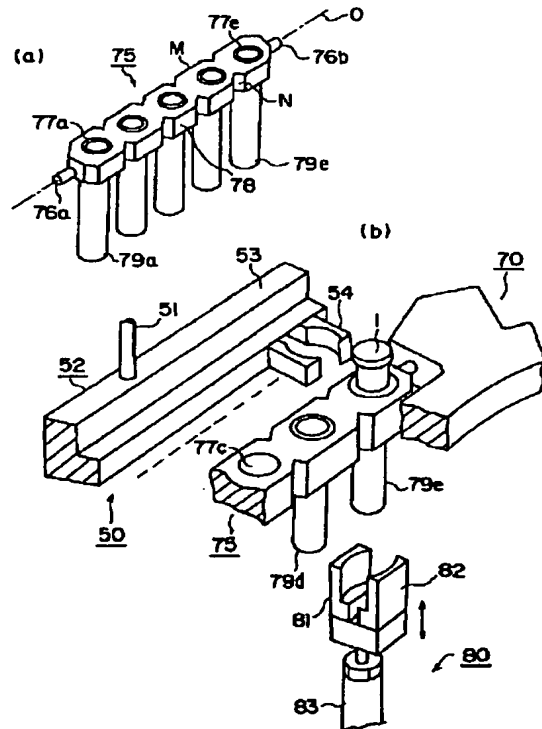


Fig. 5

【図5】

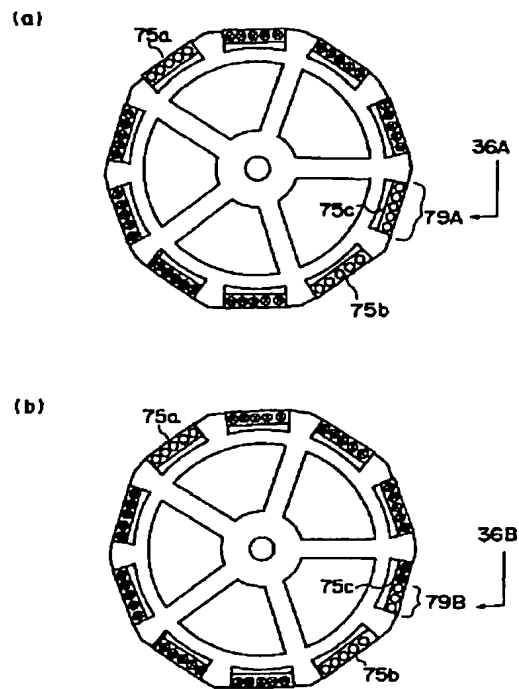


Fig. 6

【図6】

